



Metropolitan Sewerage District

OF BUNCOMBE COUNTY, NORTH CAROLINA

Dr. A. Stanley Meiburg, Chair
North Carolina Environmental Management Commission
1617 Mail Service Center
512 North Salisbury Street
Raleigh, N.C. 27699-1611

October 16, 2019

RE: Metropolitan Sewerage District of Buncombe County / Cane Creek Water and Sewer District

Dear Dr. Meiburg,

Pursuant to North Carolina General Statute 162A-68.5, Henderson County adopted a resolution on August 5, 2019, requesting the inclusion of the Cane Creek Water and Sewer District (CCWSD) into the Metropolitan Sewerage District of Buncombe County (MSD). G.S. 162A-68.5 requires MSD, in response to such a resolution, to provide certain information to the Environmental Management Commission. The purpose of this letter is to provide such information to you, in your capacity as chair of the EMC, to Ms. Marion Deerhake, chair of the Water Quality Committee of the EMC, and to Lois Thomas, the EMC recording clerk. We are also providing a copy to your counsel, Philip Reynolds, Esq.

By way of background and information, MSD and Henderson County partnered, in the early 1970's to extend MSD's sewer system into northern Henderson County, the CCWSD service area. CCWSD was formed in 1981. In 1988 MSD and CCWSD entered into an agreement for MSD to accept and treat wastewater from CCWSD. CCWSD has constructed, operated, maintained and extended its local collector sewer system since that time. As is evident from the enclosed resolution, CCWSD wants to become part of MSD, and wants MSD to assume ownership and the responsibility to operate and maintain the CCWSD sewer system.

The following information is enclosed:

Under G.S. 162A-68.5

- (a) Attached Exhibit #1 is the resolution from Henderson County
- (b) 1a) Exhibit #2 is a map of the present and proposed boundaries of the new District.

~Protecting Our Natural Resources~

- 1b) Exhibit #3 the existing sewage disposal system, sewerage system and sewers.
- 1c) MSD extended its sewer system to the area served by CCWSD in the early 1970's. CCWSD has constructed, operated and maintained its own sewerage system since the 1980's. So, no extension of the sewer system is necessary.
- 2a) Exhibit #4 shows the extension that was completed in the early 1970's connecting the two systems.
- 2b) Not applicable since the extension was completed in the early 1970's.
- 2c) Not applicable since the extension was completed in the early 1970's.
- 3) Exhibit #5 is the analysis of the inclusion of CCWSD into MSD.

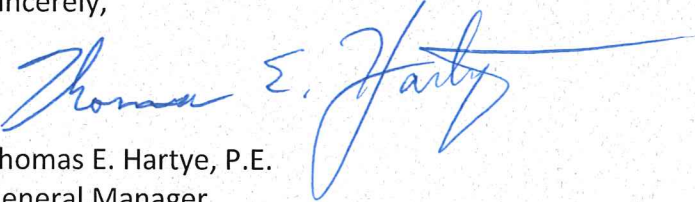
Included in the analysis is a timeline for this consolidation to be accomplished by July 1, 2020 to coincide with the Fiscal Years for MSD and CCWSD.

Also attached is a copy of the PowerPoint presentation given to the MSD Planning and Finance Committees.

This submittal is endorsed by the entire MSD Board of Directors.

Please call me with questions, or if you need additional information. I am available to speak to you or the chair of the Water Quality Committee.

Sincerely,


Thomas E. Hartye, P.E.
General Manager

Cc: Grady Hawkins, Chairman Henderson County Commissioners
Jerry Vehaun, MSD Chairman of the Board
Marion C. Deerhake, Chair
Water Quality Committee
Lois Thomas, EMC Recording Clerk
Philip Reynolds, EMC Counsel
Adriene Weaver, Division of Water Resources ?

Henderson County
North Carolina

Before the Board of Commissioners

RESOLUTION

BOARD OF COMMISSIONERS ENACTMENT 2019- 68

WHEREAS, the Cane Creek Water and Sewer District (the "District") was created by the County of Henderson (the "County") to provide potable water and sanitary sewer to the residents of the District; and,

WHEREAS, the District is located within the County;

WHEREAS, the District has installed and operates a sewerage system to the District and its residents and businesses; and,

WHEREAS, the District contracts with the Metropolitan Sewerage District of Buncombe County ("MSD") for the bulk service treatment of all the sewage collected in the District; and,

WHEREAS, MSD has installed a sewerage system which operates within the County; and,

WHEREAS, MSD serves customers within the County as of the date hereof; and,

WHEREAS, it would benefit the customers of the District for the District to be included within MSD.

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners of Henderson County, in that capacity and *ex officio* as the Board of Directors of the District, hereby requests the inclusion of the District into MSD.

Moved and adopted, this the 5th day of August, 2019.



Grady Hawkins
GRADY HAWKINS, Chairman
Henderson County Board of Commissioners

Attest:

Teresa L. Wilson
TERESA WILSON, Clerk to the Board of Commissioners



METROPOLITAN SEWERAGE DISTRICT AND CANE CREEK WATER AND SEWER DISTRICT BOUNDARIES

01234

Miles

Print Date: 10/9/2019

N

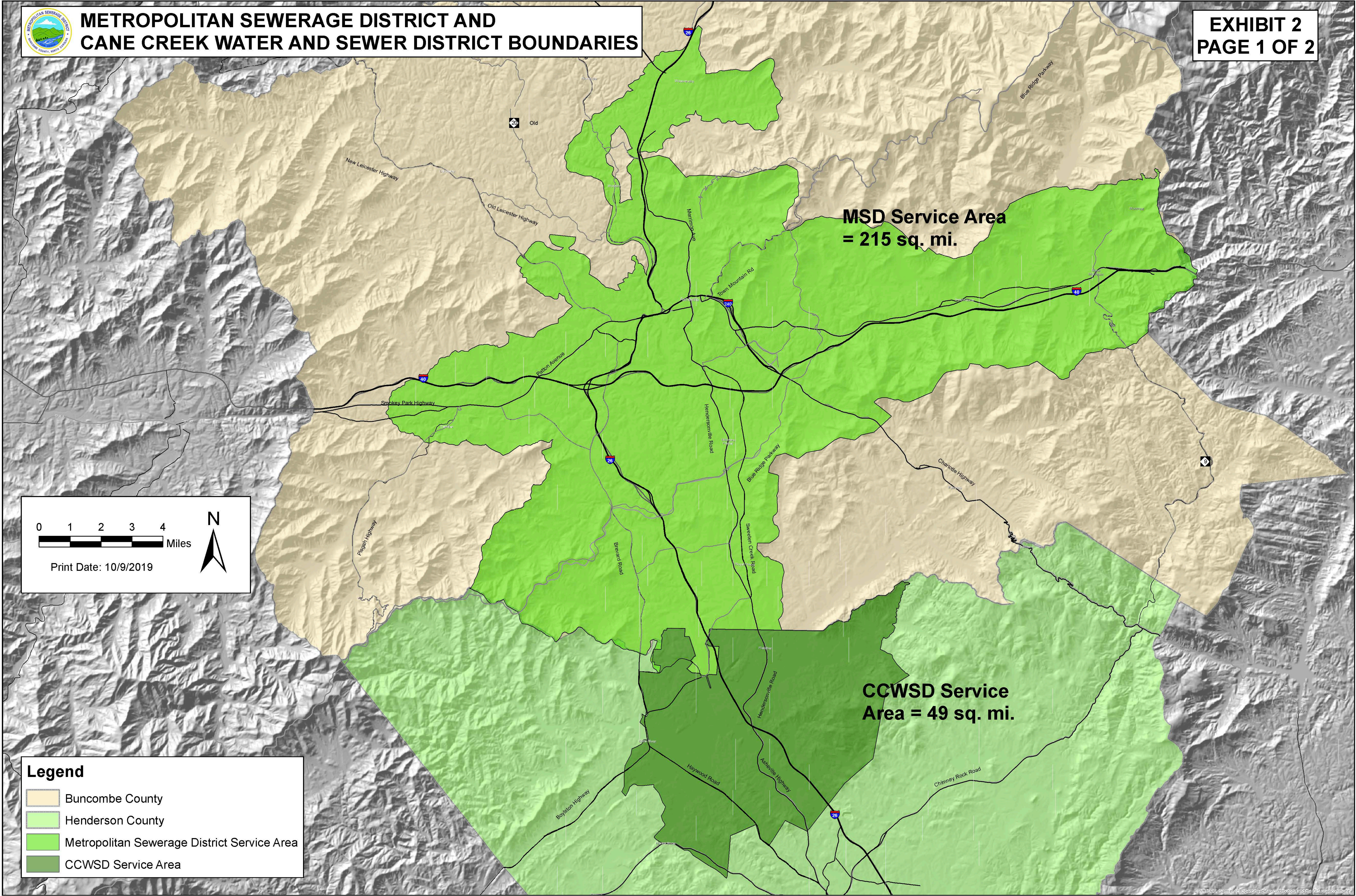
Legend

Buncombe County

Henderson County

Metropolitan Sewerage District Service Area

CCWSD Service Area





**METROPOLITAN SEWERAGE DISTRICT
PROPOSED DISTRICT BOUNDARY**

**MSD Expanded Service Area
= 264 sq. mi.**

0 1 2 3 4
Miles

Print Date: 10/9/2019



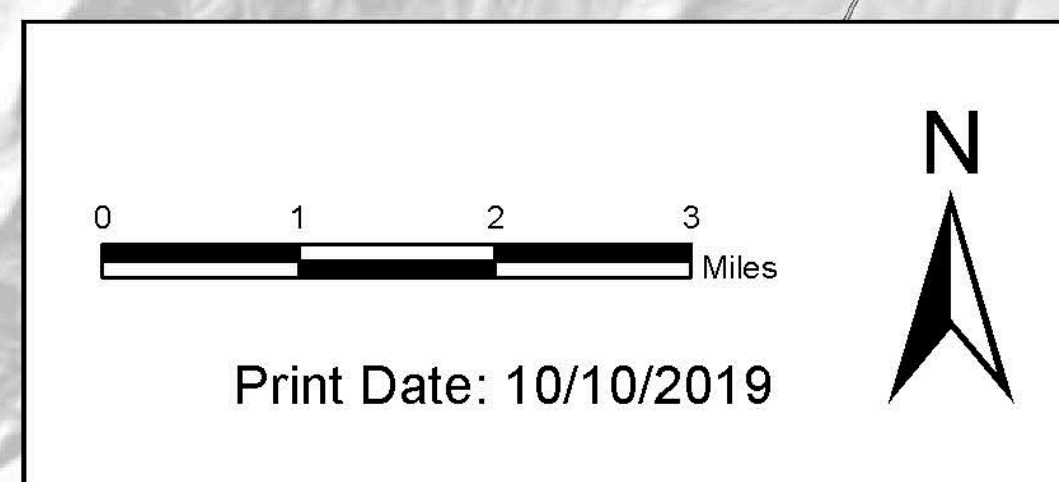
Legend

-  Buncombe County
-  Henderson County
-  Proposed Metropolitan Sewerage District Service Area



METROPOLITAN SEWERAGE DISTRICT COLLECTION SYSTEM MAP

EXHIBIT 3
PAGE 1 OF 2



Legend

- Metropolitan Sewerage District Service Area
- CCWSD Service Area

MSD Sewer Summary

- Public Gravity Main: 1026.84 miles
- Public Pressurized Main: 15.83 miles
- Public Manholes: 31077
- Public Pump Stations: 30



CANE CREEK WATER AND SEWER DISTRICT COLLECTION SYSTEM MAP

EXHIBIT 3
PAGE 2 OF 2

0 2,000 4,000 6,000 Feet

Print Date: 10/10/2019



Legend

- CCWSD Service Area
- Metropolitan Sewerage District Service Area
- MSD Owned Interceptor

ITT
Pump Station

Fanning Bridge
Pump Station
New Bern
Pump Station

Rockwell
Pump Station

Mud Creek
Pump Station

Naples
Pump Station

School House Road
Pump Station

Mill Pond
Pump Station

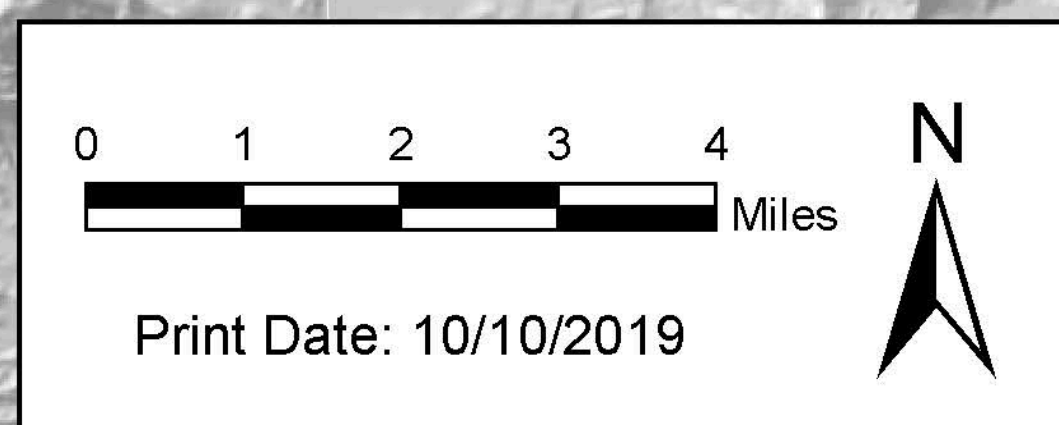
Mountain Home, Kyocera
Pump Station

Cane Creek Sewer Summary
- Public Gravity Main: 76.85 miles
- Public Pressurized Main: 9.50 miles
- Public Manholes: 2161
- Public Pump Stations: 9



METROPOLITAN SEWERAGE DISTRICT AND CANE CREEK WATER AND SEWER DISTRICT BOUNDARIES AND INTERCEPTORS

EXHIBIT 4



- Legend**
- Buncombe County
 - Henderson County
 - Metropolitan Sewerage District Service Area
 - CCWSD Boundary
 - MSD System Large Interceptors
 - MSD Owned Interceptor Into CCWSD
 - CCWSD Interceptors

MSD INTERCEPTORS

***Buncombe
County***

MSD 24" EXTENSION
INTO CCWSD EARLY 1970'S

***Henderson
County***

Metropolitan Sewerage District of Buncombe County

Board Action Item

COMMITTEE MEETING DATE: October 16, 2019

SUBMITTED BY: Thomas Hartye, General Manager

SUBJECT: Expansion of MSD to include Cane Creek WSD

BACKGROUND:

The recent passage of House Bill 758 (SL 2019-127) amended MSD's enabling legislation to allow for Henderson County to consolidate with MSD under a revised process whereby, once requested, MSD will prepare information to be brought to the Environmental Management Commission (EMC). After the required public hearing/input, if the consolidation is approved by the EMC, Henderson County shall appoint two representatives from the Cane Creek Water and Sewer District (CCWSD) territory to the MSD Board.

At the August 5th meeting of the Henderson County Commissioners, the attached resolution was passed requesting inclusion into the District.

Also attached is a Process Summary and a proposed timeline for all the items (stipulated in the amended legislation) to be accomplished. The hope is to accomplish this entire process by July 1, 2020 so as to dovetail with the change in fiscal year.

DISCUSSION:

In the early 1970's MSD and Henderson County partnered to run an interceptor extension from the MSD collection system into northern Henderson County to what is now the Cane Creek Water and Sewer District. Attached is an exhibit showing that extension. In 1981 the Cane Creek Water and Sewer District was formed by the Henderson County Commissioners. MSD entered into an agreement with CCWSD in 1988 (which was amended in 1989) for the treatment of 1.35 MGD of wastewater.

MSD does not own or operate the collection system in the Cane Creek District. MSD charges the CCWSD customers treatment service charges based upon their usage but not the flat rate meter fee which is theoretically for local collection system maintenance. CCWSD has operations personnel and contractors to work on the system and charges an additional fee to their customers for maintenance of the local collection system. CCWSD remits collections made on MSD's behalf on a monthly basis.

MSD staff performed some "due diligence" analyses back in 2010, 2013 and 2017 as a part of the previous efforts at consolidation. Those analyses basically showed that in

considering all operations, assets, and liabilities that the impact to MSD would be minimal and have no rate implications.

MSD staff has just completed performing an updated analysis of the impact of expanding MSD to include CCWSD.

FINDINGS:

Over the past several weeks MSD personnel met with Henderson County representatives, evaluated information received from Henderson County and performed field inspections of the pump stations, new projects, and critical areas of the CCWSD system.

The CCWSD service area is approximately 49 square miles. CCWSD owns and operates approximately 84 miles of sewer mains and 9 pump stations. The current average daily flow from CCWSD is approximately 0.9 million gallons per day. CCWSD has 3686 Residential customers, 225 Commercial customers, and 6 Industrial customers. Water service for the area is provided by both the City of Asheville and the City of Hendersonville. The current Capital Asset Value is approximately \$25 million. CCWSD is carrying a private placement loan for the construction of the Mud Creek Interceptor for approximately \$2.7 million, and has a balance of approximately \$2.4 million which is slated to complete planned CIP projects.

MSD's Treatment Plant is rated at 40 MGD and is currently averaging 25.9 MGD (which includes flow from CCWSD). There is plenty of treatment capacity for the planned build out of the CCWSD area.

Master planning by Henderson County for the CCWSD area estimates a future need of 3.0 million gallons a day. MSD master planning has already included this figure in all recent studies for collection and treatment. The 50-year Interceptor Study recently completed by MSD includes improvements to serve the southern portion of Buncombe County along with the CCWSD. These projects include the South French Broad Interceptor, the Carrier Bridge Pump Station replacement/upgrade and its associated wet weather equalization tank.

The CCWSD collection system is generally in good condition. MSD staff have inspected the 9 pump stations and noted any needed improvements to bring them up to MSD standards. Attached is a spreadsheet showing the needed improvements which have been included in the recommended Capital Improvement Plan (CIP) discussed below.

The Capital Improvement Plan developed for the CCWSD area includes projects in both Buncombe and Henderson Counties. The engineering consultant for Henderson County, WGLA & Assoc. developed a plan of desired capital improvements, some of which were intended to be funded by Henderson County and some of which were to be extensions in partnership with others in the future. MSD staff developed a 10-year CIP for the CCWSD area (attached) which includes some of those projects along with a proportionate share of existing projects that MSD is slated to complete with monies being currently collected from

the CCWSD area customers. The projected 10-year CIP for CCWSD area is estimated to be \$15,127,213.

As far as operations, MSD will retain one employee who will remain in a Henderson County office which MSD will rent so that there will be close coordination for new customers and developments along with collections for well customers. There will be operational cost reductions for staff by approximately \$345,000 and for indirect cost allocations by \$105,000.

Attached are three 10-year Financial Projections, one representing MSD's current Business Plan, a revised MSD Business Plan including CCWSD, and a "what-if" projection of CCWSD revenues versus expenses for operations and capital improvements as identified.

The financial impact of including CCWSD within MSD is de minimis. There are no rate implications by including the operations and Capital Improvement Plans as developed by MSD staff and represented herein.

All current operational and financial MSD Policies were followed in preparing this analysis.

Between now and July 1, 2020 MSD will seek to resolve the following items:

- MSD and CCWSD will develop a Consolidation Agreement stipulating some of the details that have been assumed above and below in this report.
- MSD is in conversations with the City of Hendersonville with regard to billing for the area in which they provide water service. Hopefully the City will partner with the MSD as our other member agencies have with regard to billing. If not, MSD will likely contract with Henderson County for the first year.
- MSD will make arrangements for the payment of CCWSD debt along with ensuring all assets and cash balances are properly transferred at July 1, 2020.
- MSD will assume some operational contracts, at least at the outset, until other arrangements can be made using our existing operation.
- MSD will ensure that CCWSD's State Collection System Permit is properly transferred.
- MSD will monitor the close-out of the Fletcher Academy/Hospital treatment facility and ensure that disposal irregularities do not occur.
- MSD will seek to have CCWSD completely close-out the Mud Creek Interceptor Extension and to have payment received from Fletcher Academy.

COMMITTEE ACTION TAKEN		
Motion by: <u>Glenn Kelly</u>	To: <input checked="" type="checkbox"/> Approve	<input type="checkbox"/> Disapprove
Second by: <u>Gwen Wisler</u>	<input type="checkbox"/> Table	<input type="checkbox"/> Send back to Staff
	<input type="checkbox"/> Other	
BOARD ACTION TAKEN		
Motion by: <u>Gwen Wisler</u>	To: <input checked="" type="checkbox"/> Approve	<input type="checkbox"/> Disapprove
Second by: <u>Jackie Bryson</u>	<input type="checkbox"/> Table	<input type="checkbox"/> Send back to Staff

Henderson County
North Carolina

Before the Board of Commissioners

RESOLUTION

BOARD OF COMMISSIONERS ENACTMENT 2019- 68

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WHEREAS, MSD has installed a sewerage system which operates within the County; and,

WHEREAS, MSD serves customers within the County as of the date hereof; and,

WHEREAS, it would benefit the customers of the District for the District to be included within MSD.

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners of Henderson County, in that capacity and *ex officio* as the Board of Directors of the District, hereby requests the inclusion of the District into MSD.

Moved and adopted, this the 5th day of August, 2019.



Grady Hawkins
GRADY HAWKINS, Chairman
Henderson County Board of Commissioners

Attest:

Teresa L. Wilson
TERESA WILSON, Clerk to the Board of Commissioners

MSD-CCWSD Merger Process Summary

As defined by NCGS 162A-68.5 (SL2019--127)

- 1) The Henderson County Commissioners file a resolution with the District Board requesting inclusion of CCWSD into the District.
- 2) The District Board shall send to the Environmental Management Commission (EMC) and Henderson County all of the following:
 - a) Maps of the District showing the following:
 - 1) The present and proposed new boundaries of the District.
 - 2) The existing sewer system.
 - 3) Any proposed extensions of the system.
 - b) A description of any proposed extension of services to Henderson County, which shall address all of the following:
 - 1) Extension of sewerage service to CCWSD on substantially the same basis and manner as currently exists within the rest of the District.
 - 2) A proposed time schedule for extension of service.
 - 3) The estimated cost of extending service, including the method of financing the extension of service, outstanding existing indebtedness of the District, the valuation of assessable property within the District and within the requesting county.
 - c) An analysis of the inclusion of CCWSD into the District.
- 3) The EMC shall review the documents submitted. They shall, in conjunction with Henderson County, schedule a public hearing in Henderson County. The Chairman of the Henderson County Commissioners shall give at least 30 days notice. The notice shall be posted on the Henderson County Courthouse door, in the Henderson County newspaper for four weeks, and the Buncombe County newspaper.
- 4) After the hearing, if the EMC determines that the addition of CCWSD into the District will not "...adversely affect customer service and preserve and promote the public health and welfare of the district..." the EMC shall adopt a resolution expanding and defining the boundaries of the District to include CCWSD. An effective date shall be specified in the resolution.

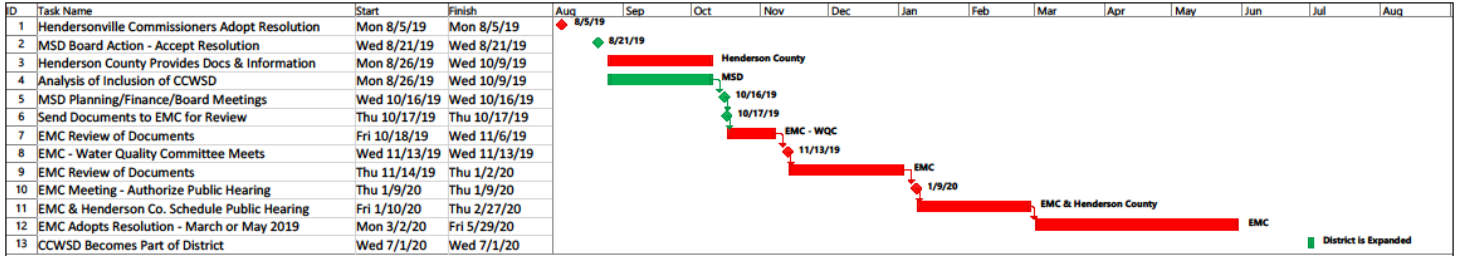
5) Any court action opposing the EMC resolution or inclusion of CCWSD must be commenced within 30 days after the effective date of the EMC resolution. Any actions taken after the 30 day period will not be valid.

6) CCWSD shall be subject to all debts of the District.

7) Upon inclusion of CCWSD into the District, the District Board shall be expanded by two members. The members shall be qualified voters residing in CCWSD and appointed by the Henderson County Commissioners. The term of office for these two new members may vary by no more than 6 months from what is specified in GS 162A-67.

MSD-CCWSD Merger Timeline

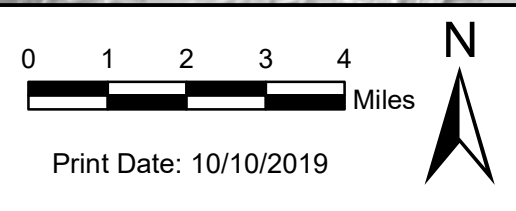
Proposed Conclusion by June 30, 2020



September 2019



METROPOLITAN SEWERAGE DISTRICT AND CANE CREEK WATER AND SEWER DISTRICT BOUNDARIES AND INTERCEPTORS



Legend

- Buncombe County
- Henderson County
- Metropolitan Sewerage District Service Area
- CCWSD Boundary
- MSD System Large Interceptors
- MSD Owned Interceptor Into CCWSD

MSD INTERCEPTOR

***Buncombe
County***

MSD 24" EXTENSION
INTO CCWSD EARLY 1970'S

***Henderson
County***

Spreadsheet last updated October 11, 2019

	Criteria meets MSD standards
	Criteria does not meet MSD standards
	To be removed from system

Pump Station Flow Data and MSD Criteria	ITT 470 Broadpointe Dr.	Mud Creek No. 1 180 W Swift Creek Rd	Mud Creek No. 2 180 W Swift Creek Rd	Naples ¹	Cane Creek Water & Sewer District Pump Station 1.D. Rockwell 641 Rockwell Dr	Mountain Home 99 Industrial Park Dr	New Bern 25 New Bern Dr	Fanning Bridge Road 72 Fanning Bridge Rd	Mill Pond 3791 Haywood Rd	School House Road 21 School House Rd
Firm Capacity (mgd)	0.936	1.262	0.648	0.518	1.584	0.288	0.202	0.286	0.279	0.138
Design Average Daily Flow (mgd)	0.3744	0.5128	0.2592	0.2072	0.6336	0.1152	0.0808	0.3044	0.1116	0.0523
Approx. Avg. Current Daily Flow (mgd)	0.195	0.215	0.215	0.052	0.204	0.0319	0.0306	0.137	0.0256	0.00921
Obligated, Not Yet Trib. Flow (mgd)	0.046	0.12	0.12	0	0	0	0	0	0.01	0
Available Capacity (mgd)	0.1334	0.1778	-0.0758	0.1552	0.4296	0.0833	0.0502	0.2574	0.076	0.04599
Site Requirements										
Paved Entrance	No (gravel)	No (gravel)	No (gravel)	No (gravel)	No (gravel)	Yes	No (gravel)	No (gravel)	Yes	No (gravel)
Accessible by flusher truck	Yes (see below)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
R#2 Backflow Preventer	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes
15' wide access gate	Yes	Yes	Yes	Yes	No - 12'	Yes	Yes	No - 14'	Yes	Yes
Sign on Gate	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6' chain link fence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Emergency Generator	Yes (permanent)	Yes (permanent)	Yes (permanent)	Yes (Yes (permanent)	Yes (permanent)	Yes (permanent)	No - Godwin DBS	No - Godwin DBS	Yes (permanent)
Influent Manhole	No (see below)	Yes (see below)	No	No	Yes (see below)	No	No	Yes	Yes	Yes
Area Light	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Yard Hydrant	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Wetwell and Valve Vault Requirements										
Wetwell Float Switches	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Level Indicator	Yes (Multitrode Level Probe)	Yes (Multitronics Hydrometer)	Yes (Multitronics Hydrometer)	Yes (Multitrode Level Probe)	Yes (Multitrode Level Probe)	Yes (Multitrode Level Probe)	Yes (Multitrode Level Probe)	Yes (Multitrode Level Probe)	Yes (Multitrode Level Probe)	Yes (Multitrode Level Probe)
Aluminum Access Hatches	Yes	Yes (see below)	Yes (see below)	Yes	Yes	Yes (see below)	Yes	Yes	Yes	Yes
Force Main bypass	No	No	No	No	No	No	No	No	No	Yes (see below)
Force Main Pressure Gauge	No	No	No	No	No	No	No	No	No	Yes
Valve Vault Drain	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Electrical Equipment Rack Requirements										
Service Entrance Disconnect/Voltage	Yes/480V	Yes/480V	Yes/480V	Yes/480V	Yes/480V	Yes/480V	Yes/480V	Yes/480V	Yes/480V	Yes/480V
GFI Outlet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Automatic Transfer Switch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No - N/A	Yes	Yes
Pump Control Panel Audible and Visual Alarm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Concrete pad	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Scada Equipment	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Estimated Cost of Improvements										
	\$988,000	\$15,000	\$350,000	\$0	\$50,000	\$15,000	\$35,000	\$15,000	\$0	\$15,000
Notes: *Pump station to be eliminated per CCWSO. All SCADA is GuardDog web-based software manufactured by Omnisite.										
Force main partially corroded inside wetwell. Pump station overall in poor condition. Access via flusher truck will be difficult. Existing guard entry road has tight bend below PS. Suggest enlarging turning area below PS, regrading access drive (approx. 50') as well as area within PS fence, and paving the site. Greg Wiggins mentioned that ITT pump station would require future expansion due to other PS elimination projects. Wet well is very deep, approx. 30-40'. Improvement costs include PS replacement.	Valve vault access via manhole lids and will provide diffcult for future valve replacement. Pump station overall is in good condition. Mud Creek has three wetwells and is divided into two pump stations. Mud Creek #1 has a 24" incoming line with head manhole. Mud Creek #2 has an 8" incoming line, but no head manhole. MC #1 is approx. 30' deep and pumps into MC #2 (approx. 20' deep) which has a separate 10" diam. EQ wetwell. MC #2 pumps all flow out via 2 mile force main. 24" incoming line into MCF1 is close to bottom of wetwell, offering very little storage volume. Existing gen set is not capable of running both stations. One main electrical feed powers control panels to both stations with no apparent method for isolating power to individual stations. Additions to wetwell top slabs will make pump replacement difficult. Improvement costs include pump and control panel upgrades at MCR2, and new gen set, and electrical upgrades.	This station was not evaluated in 2019. Pump station overall is in fair condition (2015 assessment); access could be difficult with multiple vehicles. To be eliminated in prior to July 2020 per Greg Wiggins.	Pump station has two wetwells, the second for wet weather EQ. Pump station overall is in good condition. Wetwell has two incoming lines, 10" and 18". Both lines have influent manholes within PS property, but not a common influent MH. 18" line enters at bottom of wetwell, greatly reducing storage volume. Suggest trying existing 10" incoming line into 18" line to create one head manhole. Improvement costs include pipe/MH work to create single head MH, and GFI outlet installation.	Pump station overall is in fair condition. Force main discharge inside of wetwell is badly corroded. Valve vault access is via manhole lid. Improvement costs include piping replacement.	Portable generator hookup (located approx. 100 yds. from PS) is non-functional per CCWSO. Access road to pump station is very narrow and not accessible by flusher truck. Pump station overall is in poor condition. Needs general housekeeping and upgrade (i.e. concrete pad, new pump discharge piping, removal of overhead crane, new ARV in valve vault). Improvement costs include all of the above and easement/construction to widen access road. Adjoining property is 86.5 acres (Fletcher Line Stone Co.) and taxed at \$88,400.	This station placed on line in Fall 2016. It has two 10' diam. wetwells, one for EQ. Godwin DBS pump is natural gas powered and has been installed in lieu of emergency generator. There is an electrical hookup for portable generator. Godwin DBS capable of conveying peak flow (i.e. capacity equals that of submersible). Improvement costs include storage building purchase and installation.	This station placed on line in July 2017. Godwin DBS pump is natural gas powered. Godwin DBS capable of conveying peak flow (i.e. capacity equals that of submersible). No improvement necessary at this time.	This station placed on line in July 2015. Permanent generator is natural gas powered. There is currently a bypass tie-in at the PS, however, it is a 4" camlock connection inside a water meter box. Connection will be difficult. There is a second bypass tie-in on the force main, but it is approx. 3/4 mile downstream of PS. Suggest modifying existing bypass tie-in at PS. Improvement costs include storage building purchase and installation, and bypass modifications.		



CANE CREEK WSD AND 10-YEAR CAPITAL IMPROVEMENT PROGRAM

0 1 2 3 4
Miles

Print Date: 10/10/2019



Legend

- Buncombe County
- Henderson County
- Metropolitan Sewerage District Service Area
- CCWSD Service Area
- CCWSD Proposed Projects - Structures
- CCWSD Proposed Projects - Pipes

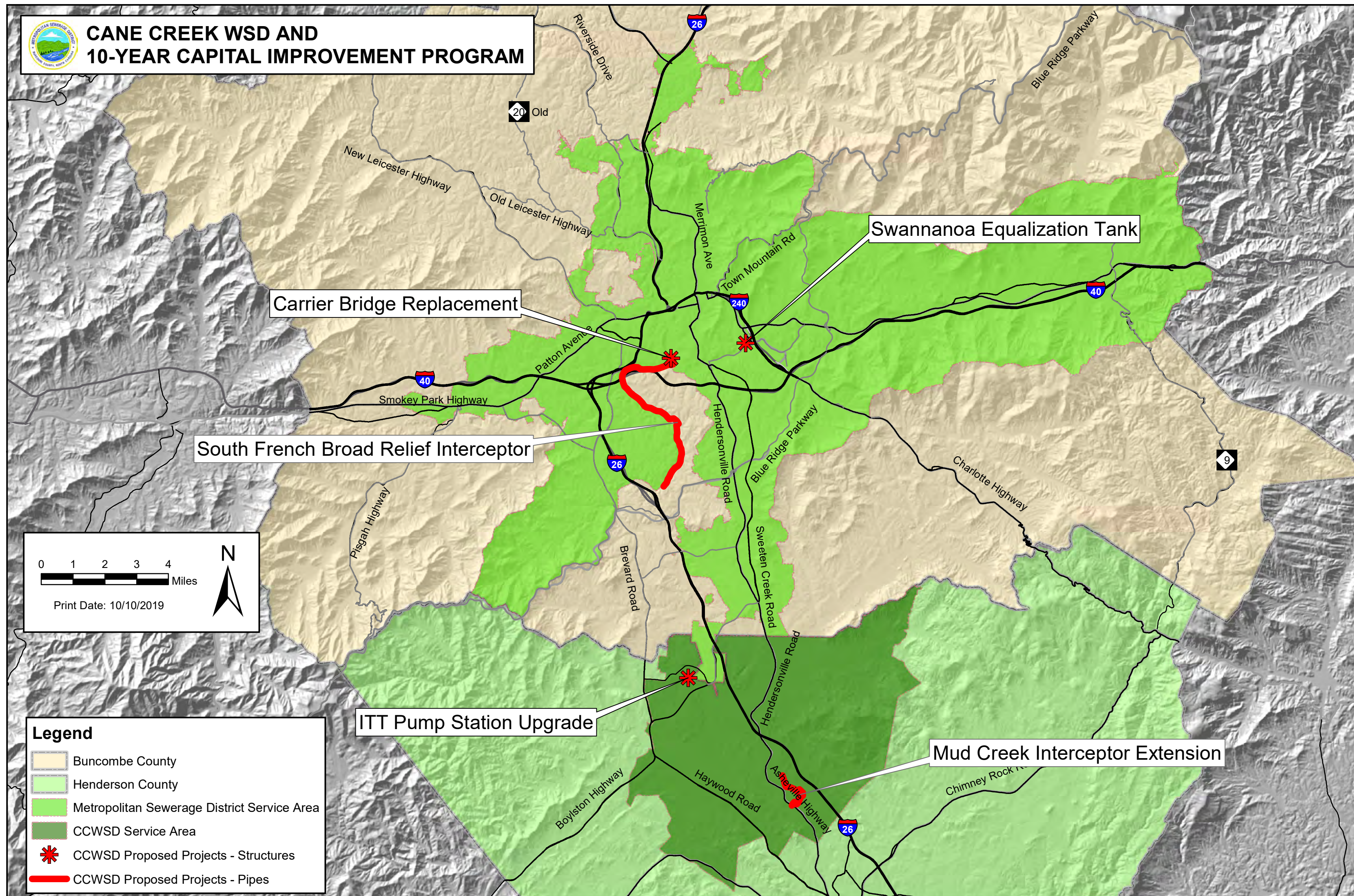
Carrier Bridge Replacement

South French Broad Relief Interceptor

ITT Pump Station Upgrade

Swannanoa Equalization Tank

Mud Creek Interceptor Extension



CANE CREEK WATER AND SEWER DISTRICT

HENDERSON COUNTY, NORTH CAROLINA

TEN YEAR CAPITAL IMPROVEMENT PROGRAM

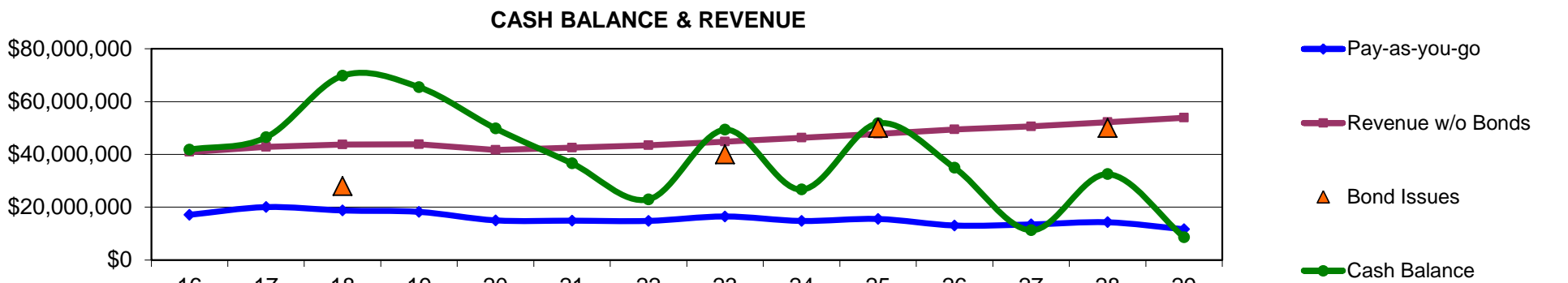
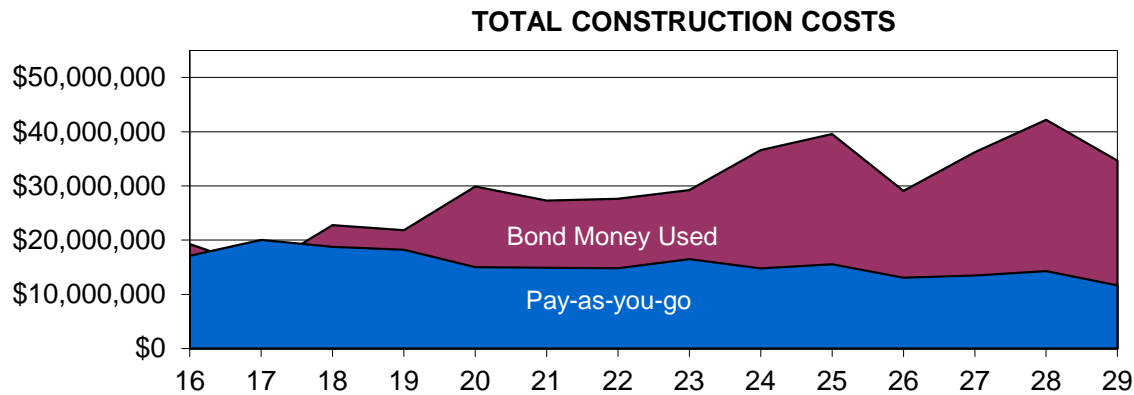
				FY2021 - FY2030									
PROJECT NAME	TOTAL ESTIMATED COST	PROJECT FOOTAGE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
INTERCEPTORS													
Mud Creek Interceptor Phase II (Fletcher Academy)	\$3,977,670		\$2,741,580	\$300,000									
Mud Creek Interceptor/Extension Phase III (Mtn. Home)	\$4,289,000	9,200						\$334,000	\$1,977,500	\$1,977,500			
South French Broad Relief Interceptor - Costs Apportioned	\$2,343,768			\$234,377	\$234,377	\$234,377	\$234,377	\$234,377	\$234,377	\$234,377	\$234,377	\$234,377	\$234,377
Swannanoa Equalization Tank - Costs Apportioned	\$1,539,375			\$153,938	\$153,938	\$153,938	\$153,938	\$153,938	\$153,938	\$153,938	\$153,938	\$153,938	\$153,938
SUBTOTAL (Without Mud Crk. Ph II)	\$12,149,813			\$688,315	\$388,315	\$388,315	\$388,315	\$722,315	\$2,365,815	\$2,365,815	\$388,315	\$388,315	\$388,315
Inflation per ENR Const. Cost Index	2.90%		1.0000	1.0290	1.0588	1.0895	1.1211	1.1537	1.1871	1.2215	1.2570	1.2934	1.3309
SUBTOTAL with inflation				\$708,276	\$411,164	\$423,088	\$435,357	\$833,304	\$2,808,491	\$2,889,937	\$488,098	\$502,253	\$516,818
PROJECT NAME	TOTAL ESTIMATED COST		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
GENERAL SEWER REHABILITATION													
General Sewer Rehabilitation Projects (Future)	\$1,800,000				\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Emergency Line Replacements & Repairs	\$500,000			\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Line Cleaning & CCTV	\$200,000			\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
SUBTOTAL	\$2,500,000			\$70,000	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000
Inflation per ENR Const. Cost Index	2.90%		1.0000	1.0290	1.0588	1.0895	1.1211	1.1537	1.1871	1.2215	1.2570	1.2934	1.3309
SUBTOTAL with inflation				\$72,030	\$285,887	\$294,178	\$302,709	\$311,488	\$320,521	\$329,816	\$339,380	\$349,222	\$359,350
PROJECT NAME	TOTAL ESTIMATED COST		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
TREATMENT PLANT, PUMP STATIONS & GENERAL CAPITAL IMPROVEMENTS													
Carrier Bridge Replacement - Costs Apportioned	\$1,500,000			\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
ITT Pump Station Upgrade	\$988,000	N/A				\$110,000	\$600,000	\$278,000					
Pump Station Upgrades & Equipment	\$200,000			\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Vehicles	\$250,000				\$50,000		\$50,000		\$50,000		\$50,000		\$50,000
SUBTOTAL	\$2,938,000			\$20,000	\$70,000	\$130,000	\$670,000	\$298,000	\$70,000	\$20,000	\$70,000	\$20,000	\$70,000
Inflation per ENR Const. Cost Index	2.90%		1.0000	1.0290	1.0588	1.0895	1.1211	1.1537	1.1871	1.2215	1.2570	1.2934	1.3309
SUBTOTAL with inflation				\$20,580	\$74,119	\$141,641	\$751,167	\$343,790	\$83,098	\$24,431	\$87,988	\$25,868	\$93,165
BUDGET SUMMARY	TOTAL ESTIMATED COST		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Sub-Totals with Inflation				\$800,886	\$771,170	\$858,907	\$1,489,233	\$1,488,582	\$3,212,110	\$3,244,184	\$915,466	\$877,344	\$969,333
Line Extensions/Reimbursements/Developer Projects	\$500,000			\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Fiscal Year Totals				\$850,886	\$821,170	\$908,907	\$1,539,233	\$1,538,582	\$3,262,110	\$3,294,184	\$965,466	\$927,344	\$1,019,333
				\$15,127,213									

NOTES:

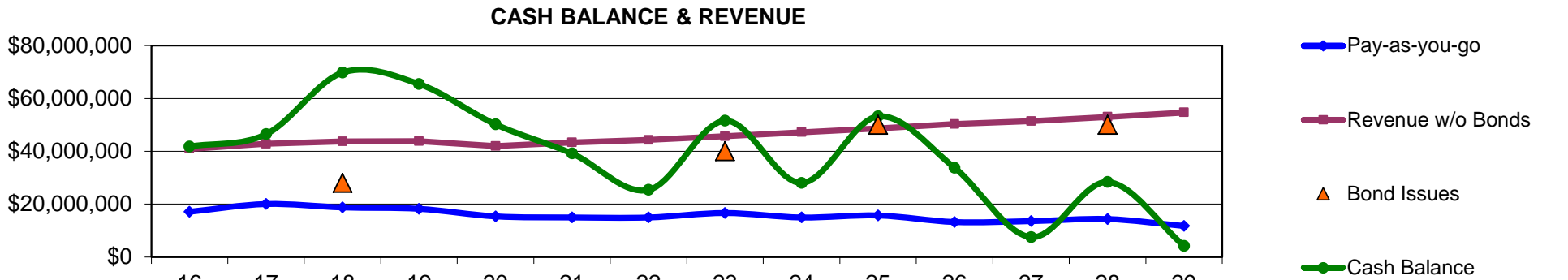
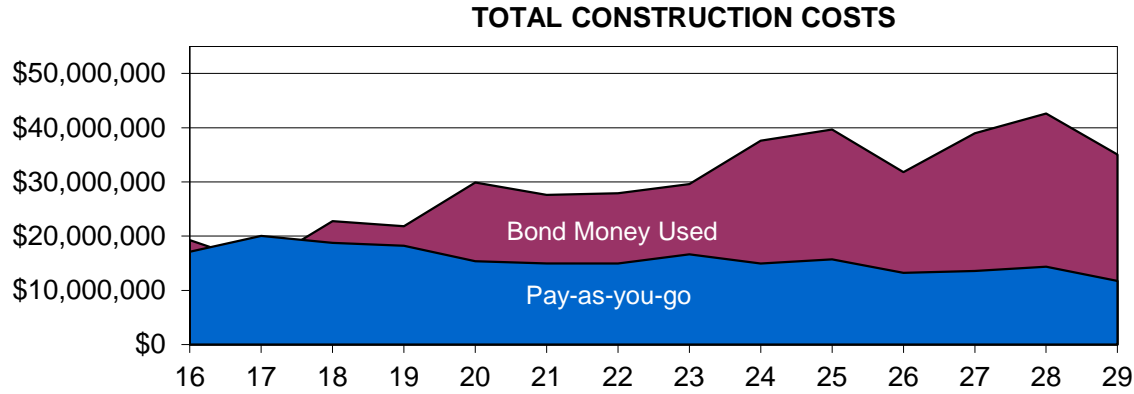
- 1) Boylston Creek P.S. & Phase 1 Interceptor (\$3,013,000; 12,300LF) and Howard Gap Interceptor (\$5,819,000; 14,300LF) are extensions and will be constructed as potential partnerships become available.
- 2) Mud Creek Ph 2: Full completion expected by June 1, 2020. Original construction contract amount \$3,056,970; \$2,426,067.52 balance as of 8/20/19. WGLA Balance \$72,238.52 as of 8/20/19. \$3,041,580= \$2,741,580 for FY20 + \$300,000 for FY21 is Outstanding Balance Total on expense sheet. See Mud Creek expense sheet for further information and details.
- 3) Project Costs and Prioritization are based on the 2019 CCWSD Basinwide Plan Update 1 (WGLA, September 2019).
- 4) Costs for the SFB Relief Interceptor, Swannanoa EQ Tank, and Carrier Bridge PS are apportioned based on flows from CCWSD at a ratio of 3mgd/40mgd, or 0.075, times the total project cost. This cost is then spread over ten years.

Sources: WGLA Engineering 2019 Basinwide Plan (September 2019, Short and Intermediate Term); Mud Creek Ph. 2 Expense Sheet from Marcus Jones

Business Plan - Current FY20	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.50%	2.50%	2.75%	2.75%	2.75%	2.75%	2.75%	Sewer Rate Increase	
	\$29.15	\$29.88	\$30.62	\$31.36	\$32.17	\$32.97	\$33.80	\$34.64	\$35.51	\$36.49	\$37.49	\$38.52	\$39.58	\$40.67	Average Monthly Bill	
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Assumptions	
July 1- Available for Construction	44,585,099	41,819,146	46,455,838	69,792,374	65,459,390	49,825,911	36,601,452	22,955,916	49,354,762	26,666,485	51,773,588	34,892,240	11,280,151	32,504,757	Minimum of 365 Days Cash on Hands	
REVENUE:																Consumption and Account Growth
Domestic Users	29,581,170	30,842,462	31,935,658	32,531,584	33,623,113	34,732,618	35,860,421	37,006,848	38,233,303	39,557,512	41,241,300	42,674,046	44,194,128	45,740,039	0.75% Increase	
Industrial Users (No growth)	3,344,074	3,909,925	4,159,767	3,745,625	3,464,402	3,544,137	3,625,866	3,709,637	3,795,503	3,892,317	3,716,793	3,819,005	3,924,028	4,031,939		
Billing and Collections (User Fee)	754,317	768,833	795,574	811,883	832,994	861,327	887,167	913,782	941,195	969,431	998,514	1,028,470	1,059,324	1,091,104		
Tap Fees	526,415	571,126	604,047	500,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000		
Facility Fees	5,798,181	6,405,971	4,752,960	4,500,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000		
Interest & Non-operating Revenues	207,246	306,110	885,718	1,500,000	1,296,960	972,308	670,020	813,495	950,266	980,501	1,083,323	692,586	656,774	617,036		
City of Asheville (annex.-Enka)	37,146	35,834	34,522	35,000	35,000	35,000	35,000	35,000	35,000	0	0	0	0	0		
Rental Income	78,925	71,399	81,826	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641		
Transfer from Reserves (to / from)	430,058	(214,395)	298,619	0	0	0	0	0	0	0	0	0	0	0		
Miscellaneous	170,897	138,469	171,097	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	Bond Issues figured at: 4.0% yield FY23 4.5% yield FY25 5.0% yield FY28	
Total Revenues	40,928,429	42,835,734	43,719,788	43,835,733	41,639,110	42,532,031	43,465,115	44,865,404	46,341,908	47,786,402	49,426,571	50,600,748	52,220,895	53,866,759		
State and Federal (EPA) Grants																
Revenue Bonds/Stimulus	28,003,632					40,000,000				50,000,000				50,000,000		
Total Funds Available	85,513,528	84,654,881	118,179,258	113,628,107	107,098,500	92,357,942	80,066,567	107,821,320	95,696,670	124,452,887	101,200,160	85,492,988	113,501,046	86,371,516		
EXPENSES:																3% inflation in O & M, Replacement Funds and Engineering Force Account
Operations & Maintenance	14,804,769	14,874,149	15,538,788	16,163,063	16,793,404	17,793,395	18,828,983	19,475,331	20,161,257	20,875,778	21,620,299	22,396,257	23,205,244	23,948,859		
Replacement Funds (WRF & Fleet)	625,000	625,000	660,000	730,000	750,000	830,000	830,000	860,000	865,000	865,000	865,000	865,000	865,000	865,000		
Debt Service	9,003,519	7,918,557	9,423,689	9,448,115	9,834,367	9,837,382	9,823,943	8,899,361	11,394,314	11,366,407	14,737,511	14,731,468	14,730,209	18,269,556	ENR 10-year Construction Index @ 2.90%	
CIP (including Bond Projects)	19,261,094	14,781,337	22,764,407	21,827,539	29,894,818	27,295,713	27,627,726	29,231,865	36,609,614	39,572,114	29,085,110	36,220,112	42,195,835	34,657,129	General Sewer Rehab to cover approx. 45,000 lineal ft / year	
Total Expenses	43,694,382	38,199,043	48,386,884	48,168,717	57,272,589	55,756,490	57,110,652	58,466,557	69,030,185	72,679,299	66,307,920	74,212,837	80,996,288	77,740,544		
Pay-as-you-go (Current Revenue only)	17,120,141	20,043,028	18,757,311	18,224,555	15,011,339	14,901,254	14,812,190	16,490,711	14,786,337	15,544,217	13,068,762	13,473,023	14,285,441	11,648,344		
Debt Coverage (User Fees only)	2.1	2.6	2.3	2.2	2.2	2.2	2.2	2.5	2.0	2.1	1.7	1.7	1.8	1.5	Target Debt Coverage 1.5	
Debt Coverage with Total Revenue	2.9	3.5	3.0	2.9	2.5	2.5	2.5	2.8	2.3	2.4	1.9	1.9	2.0	1.6		
April 4, 2019					10-Year Capital Improvement Program										No growth in Industries - Rate Parity for Flow in 2020	
Active Plan CIP	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029		
Interceptor/Wet Weather Rehabilitation	618,050	760,970	1,726,500	1,366,293	5,514,370	3,753,278	746,748	2,113,722	18,902,492	23,191,399	12,939,537	9,387,533	50,907	1,606,294		
General Sewer Rehabilitation	9,104,792	8,859,631	13,213,448	10,377,703	8,085,700	10,618,946	12,918,178	12,632,866	7,770,707	9,847,432	9,444,616	10,797,557	15,611,101	13,530,041	District 10yr CIP \$332.4 Million	
Private Sewer Rehabilitation	2,000	646,000	51,200	0	6,500	84,275	294,834	20,700	2,179,841	0	0	0	0	0	District total 10yr Budget \$669.2 Million	
Treatment Plant / Pump Stations	7,181,959	1,868,250	5,291,691	7,112,321	11,756,250	9,874,284	10,628,646	11,348,726	4,561,936	3,193,324	3,285,930	12,542,771	22,962,227	15,867,633		
Engineering Force Account	2,254,293	2,546,486	2,481,568	2,705,222	2,795,998	2,864,930	2,939,320	3,015,851	3,094,638	3,239,959	3,315,027	3,392,251	3,471,600	3,553,161		
Reimbursements	100,000	100,000	0	266,000	736,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000		
Contingency	0	0	0	0	1,000,000											
Capital Improvement Program Totals	19,261,094	14,781,337	22,764,407	21,827,539	29,894,818	27,295,713	27,627,726	29,231,865	36,609,614	39,572,114	29,085,110	36,220,112	42,195,835	34,657,129		



Business Plan MSD with Cane Creek FY20	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.50%	2.50%	2.75%	2.75%	2.75%	2.75%	2.75%	Sewer Rate Increase
	\$29.15	\$29.88	\$30.62	\$31.36	\$32.17	\$32.97	\$33.80	\$34.64	\$35.51	\$36.49	\$37.49	\$38.52	\$39.58	\$40.67	Average Monthly Bill
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Assumptions
July 1- Available for Construction	44,585,099	41,819,146	46,455,838	69,792,374	65,459,390	52,643,825	39,164,766	25,376,552	51,557,766	28,030,191	53,207,426	33,760,288	7,491,990	28,363,638	Minimum of 365 Days Cash on Hands
REVENUE:															Consumption and Account Growth 0.75% Increase Bond Issues figured at: 4.0% yield FY23 4.5% yield FY25 5.0% yield FY28 3% inflation in O & M, Replacement Funds and Engineering Force Account ENR 10-year Construction Index @ 2.90% General Sewer Rehab to cover approx. 45,000 lineal ft / year Target Debt Coverage 1.5 No growth in Industries - Rate Parity for Flow in 2020
Domestic Users	29,581,170	30,842,462	31,935,658	32,531,584	33,981,781	35,103,010	36,242,920	37,401,850	38,641,216	39,979,787	41,678,442	43,126,578	44,662,592	46,224,995	
Industrial Users (No growth)	3,344,074	3,909,925	4,159,767	3,745,625	3,464,402	3,911,772	4,002,691	4,095,884	4,191,406	4,299,107	4,134,770	4,248,476	4,365,309	4,485,355	
Billing and Collections (User Fee)	754,317	768,833	795,574	811,883	832,994	861,327	887,167	913,782	941,195	969,431	998,514	1,028,470	1,059,324	1,091,104	
Tap Fees	526,415	571,126	604,047	500,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	
Facility Fees	5,798,181	6,405,971	4,752,960	4,500,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
Interest & Non-operating Revenues	207,246	306,110	885,718	1,500,000	1,296,960	1,032,847	726,090	865,511	994,849	1,015,470	1,087,096	618,784	537,834	488,234	
City of Asheville (annex.-Enka)	37,146	35,834	34,522	35,000	35,000	35,000	35,000	35,000	35,000	0	0	0	0	0	
Rental Income	78,925	71,399	81,826	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	
Transfer from Reserves (to / from)	430,058	(214,395)	298,619	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous	170,897	138,469	171,097	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	
Total Revenues	40,928,429	42,835,734	43,719,788	43,835,733	41,997,778	43,330,597	44,280,509	45,698,668	47,190,307	48,650,436	50,285,463	51,408,949	53,011,700	54,676,329	Bond Issues figured at: 4.0% yield FY23 4.5% yield FY25 5.0% yield FY28
State and Federal (EPA) Grants															
Revenue Bonds/Stimulus			28,003,632					40,000,000		50,000,000		50,000,000			
Total Funds Available	85,513,528	84,654,881	118,179,258	113,628,107	107,457,168	95,974,422	83,445,275	111,075,220	98,748,073	126,680,627	103,492,889	85,169,237	110,503,691	83,039,966	
EXPENSES:															ENR 10-year Construction Index @ 2.90% General Sewer Rehab to cover approx. 45,000 lineal ft / year Target Debt Coverage 1.5 No growth in Industries - Rate Parity for Flow in 2020
Operations & Maintenance	14,804,769	14,874,149	15,538,788	16,163,063	16,793,404	18,193,395	19,240,983	19,899,691	20,598,348	21,325,982	22,084,009	22,873,878	23,697,194	24,455,567	
Replacement Funds (WRF & Fleet)	625,000	625,000	660,000	730,000	750,000	830,000	830,000	860,000	865,000	865,000	865,000	865,000	865,000	865,000	
Debt Service	9,003,519	7,918,557	9,423,689	9,448,115	9,834,367	10,177,977	10,087,160	9,155,305	11,644,002	11,609,839	14,974,687	14,962,388	14,954,873	18,487,964	
CIP (including Bond Projects)	19,261,094	14,781,337	22,764,407	21,827,539	29,894,818	27,608,284	27,910,581	29,602,457	37,610,532	39,672,381	31,808,905	38,975,981	42,622,986	35,046,158	
Total Expenses	43,694,382	38,199,043	48,386,884	48,168,717	57,272,589	56,809,656	58,068,724	59,517,453	70,717,882	73,473,202	69,732,601	77,677,247	82,140,053	78,854,689	
Pay-as-you-go (Current Revenue only)	17,120,141	20,043,028	18,757,311	18,224,555	15,370,007	14,959,225	14,952,367	16,643,671	14,947,957	15,714,615	13,226,768	13,572,683	14,359,633	11,732,798	
Debt Coverage (User Fees only)	2.1	2.6	2.3	2.2	2.2	2.1	2.2	2.5	2.0	2.1	1.7	1.7	1.8	1.5	
Debt Coverage with Total Revenue	2.9	3.5	3.0	2.9	2.5	2.5	2.5	2.8	2.3	2.3	1.9	1.9	2.0	1.6	
October 7, 2019					10-Year Capital Improvement Program										District 10yr CIP \$340.8 Million District total 10yr Budget \$684.3 Million
Active Plan CIP	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	
Interceptor/Wet Weather Rehabilitation	618,050	760,970	1,726,500	1,366,293	5,514,370	3,753,278	746,748	2,113,722	18,902,492	23,191,399	12,939,537	9,387,533	50,907	1,606,294	
General Sewer Rehabilitation	9,104,792	8,859,631	13,213,448	10,377,703	8,085,700	10,931,517	13,201,033	13,003,458	8,771,625	9,947,699	12,168,411	13,553,426	16,038,252	13,919,070	
Private Sewer Rehabilitation	2,000	646,000	51,200	0	6,500	84,275	294,834	20,700	2,179,841	0	0	0	0	0	
Treatment Plant / Pump Stations	7,181,959	1,868,250	5,291,691	7,112,321	11,756,250	9,874,284	10,628,646	11,348,726	4,561,936	3,193,324	3,285,930	12,542,771	22,962,227	15,867,633	
Engineering Force Account	2,254,293	2,546,486	2,481,568	2,705,222	2,795,998	2,864,930	2,939,320	3,015,851	3,094,638	3,239,959	3,315,027	3,392,251	3,471,600	3,553,161	
Reimbursements	100,000	100,000	0	266,000	736,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
Contingency	0	0	0	0	1,000,000										
Capital Improvement Program Totals	19,261,094	14,781,337	22,764,407	21,827,539	29,894,818	27,608,284	27,910,581	29,602,457	37,610,532	39,672,381	31,808,905	38,975,981	42,622,986	35,046,158	



FY20 Business Plan Cane Creek WSD - Only	2.50%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.75%	2.75%	2.75%	2.75%	Sewer Rate Increase	
	\$38.97	\$39.52	\$40.12	\$32.97	\$33.80	\$34.64	\$35.51	\$36.49	\$37.49	\$38.52	\$39.58	\$40.67	Average Monthly Bill		
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Assumptions		
July 1- Available for Construction	1,976,978	1,944,086	2,628,442	2,459,246	2,919,907	3,535,807	4,121,199	4,128,913	4,173,956	2,527,432	899,860	1,671,947	365 Days cash on hand		
REVENUES:														No Consumption and Account Growth	
Domestic Users															
Cane Creek Domestic User Fees	1,513,162	1,602,025	1,456,893												
Domestic Users - Cane Creek				1,500,000	1,537,500	1,575,938	1,615,336	1,655,719	1,701,252	1,748,036	1,796,107	1,845,500			
Industrial Users - Cane Creek				696,000	713,400	731,235	749,516	768,254	789,381	811,089	833,394	856,312			
Facility Fees - Cane Creek				50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000		
Interest & Non-operating Revenues	19,928	26,752	10,000	43,340	57,495	72,761	83,747	78,038	59,822	59,548	78,035	97,293			
Cane Creek Meter Revenue				358,668	367,635	376,826	386,246	395,902	406,790	417,976	429,471	441,281			
Miscellaneous			6,000											\$2.4 million cash toward CIP	
Total Revenues	1,533,090	1,628,777	1,472,893	2,648,008	2,726,029	2,806,759	2,884,845	2,947,914	3,007,244	3,086,649	3,187,007	3,290,386		3% inflation in O & M	
Grants/Donation		202,985	1,020,000												
Installment Loan		765,191	1,997,809												
Total Funds Available	3,510,068	4,541,039	7,119,144	5,107,255	5,645,936	6,342,566	7,006,045	7,076,827	7,181,200	5,614,081	4,086,867	4,962,332		Target Debt Coverage 1.5	
EXPENDITURES:															
Cane Creek O & M	795,709	886,581	1,139,393	995,867	1,025,743	1,056,515	1,088,211	1,120,857	1,154,483	1,189,117	1,224,791	1,261,534		Cane Creek CIP - 10 YR \$17,242,691	
Cane Creek Debt Service	119,193	139,618	385,696	340,595	263,217	255,944	249,688	243,432	237,176	230,920	224,664	218,408			
CIP (including Bond Projects)	651,080	886,398	3,134,809	850,886	821,170	908,907	1,539,233	1,538,582	3,262,110	3,294,184	965,466	927,344			
Total Expenses	1,565,982	1,912,597	4,659,898	2,187,348	2,110,130	2,221,366	2,877,132	2,902,871	4,653,769	4,714,221	2,414,921	2,407,286		MSD pays off existing debt of \$2.7 million	
Pay-as-you-go (Current Revenue only)	618,188	602,578	(52,196)	1,311,547	1,437,070	1,494,300	1,546,947	1,583,625	1,615,586	1,666,612	1,737,552	1,810,444			
Debt Coverage (User Fees only)	6.0	5.1	0.8	4.6	6.1	6.4	6.7	7.0	7.3	7.7	8.2	8.6			
Debt Coverage with Total Revenue	6.2	5.3	0.9	4.9	6.5	6.8	7.2	7.5	7.8	8.2	8.7	9.3			
October 3, 2019			10-Year Capital Improvement Program												
Active Plan CIP	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029		1 employee coming over through merger.	
Cane Creek CIP	651,080	886,398	3,134,809	850,886	821,170	908,907	1,539,233	1,538,582	3,262,110	3,294,184	965,466	927,344			
Capital Improvement Program Totals	651,080	886,398	3,134,809	850,886	821,170	908,907	1,539,233	1,538,582	3,262,110	3,294,184	965,466	927,344			

CASH BALANCE & REVENUE

